



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,402	11/01/2006	Zoltan Horvath	9007-1022	9692
<small>466</small> YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			<small>7590</small> EXAMINER YANG, QIAN	
			<small>10/05/2009</small> ART UNIT 2625	PAPER NUMBER
			MAIL DATE 10/05/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/591,402

Applicant(s)

HORVATH ET AL.

Examiner

QIAN YANG

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 1/4/07, 9/1/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the **angle α** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to because **no flow chart drawings are made for the method claims**. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 14 is objected to because of the following informalities: the claim 14 is the duplicated claim of the claim 13. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7, 9, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alderton (US Patent 3,635,557) in view of Bock (US Patent 5,012,275).

Regarding claim 1, Alderton discloses a method for imaging a primarily two-dimensional target (T) (method for photographically copying book pages), comprising the steps matching at least one optical unit (#14 mirror and side #16 of the prism #12 in Figure) adapted for influencing the direction of rays of light falling onto it with the target(T) ; illuminating (#17 in Figure, col. 2, lines 55 – 60) the target (T) while directing an optical recording means to the optical unit, mapping the pixels of the target (T) reaching the optical recording means through the optical unit by projecting the rays originating from the pixels of the target (T) at right angles to the target (T) through the optical unit to sensor means of the optical recording means in the whole range of the optical angle of the optical recording means (col. 2, line 67 to col. 3, line 6), and displacing the optical recording means (#28 in Figure) in a receding manner from the plane of the target (T). However, Alderton fails to explicitly disclose wherein the method characterized by turning away the optical recording means at a predetermined angle α in a curved course

compared to the optical axis (OA) originating from the centre of the target (T) while tilting a mirror (M) half to the extent of said displacement i.e. with an angle $\alpha/2$ -of the optical recording means.

However, in a similar field of endeavor Bock discloses a method for copying bound books. In addition, Bock discloses the method turning away the optical recording means at a predetermined angle α in a curved course compared to the optical axis (OA) originating from the centre of the target (T) while tilting a mirror (M) half to the extent of said displacement i.e. with an angle $\alpha/2$ -of the optical recording means (col. 3, lines 31 - 35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Alderton, and rotate an angle for optical recording means and mirror, as taught by Bock. The motivation for doing this is that to allow the book binding area to be more fully illuminated, as discussed by Bock (col. 3, lines 26-29).

Regarding claim 2 (depends on claim 1), Alderton discloses the method characterized by pressing down the surface of the target (T) to gain flat surface for mapping (Figure #18 and 30).

Regarding claim 3 (depends on claim 1), Bock discloses the method characterized by choosing the value of the angle α exceeding at least the half of the optical angle of the optical recording means (From Fig. 4 of current invention, the half of the optical angle of

the optical recording means is about 10 degree. Bock discloses the rotating angle θ can exceed 10 degree in the book binding area).

Regarding claim 4 (depends on claim 1), Alderton discloses the method characterized by using a mirror (M) as the optical element (#14 mirror in Figure).

Regarding claim 5 (depends on claim 4), Alderton discloses the method characterized by using a surface mirror (M) (#14 mirror in Figure).

Regarding claim 6 (depends on claim 1), Alderton discloses the method characterized by using a wedge shaped optical element composed of a pressing-down glass plate (G) and a surface mirror (M) (#14 mirror and the glass prism #12 in Figure).

Regarding claim 7 (depends on claim 6), Bock discloses the method characterized by using an optical element with adjustable front rake (col. 3, lines 26-29).

Regarding claim 9 (depends on claim 1), Alderton discloses the method characterized by applying a light source (L) providing homogenous diffused light (#17 in Figure, col. 2, lines 55 – 60).

Regarding claim 11, Alderton discloses an arrangement for imaging a primarily two-dimensional target (T), including at least one optical unit adapted for influencing the

direction of rays of light falling onto it (#14 mirror and side #16 of the prism #12 in Figure), a light source (L) illuminating the target (T) (#17 in Figure, col. 2, lines 55 – 60) and optical recording means (#28 in Figure) directed to the optical unit characterized in that while being directed to the optical unit (col. 2, line 67 to col. 3, line 6) the optical recording means is displaced in a receding manner from the plane of the target (T) (#28 in Figure), and originally running at an angle of 45 to the surface of the target (T) (the angle between #28 and #20 in the Figure is 45 degree).

However, Alderton fails to explicitly disclose wherein the optical recording means is positioned in a way that it is turned away at a predetermined angle α in a curved course compared to the optical axis (OA) originating from the centre of the target (T), while a mirror (M) is tilted to an extent which is increased by a half of the displacement angle- i.e. with an angle $\alpha/2$ -of the optical recording means.

However, in a similar field of endeavor Bock discloses a system for copying bound books. In addition, Bock discloses the optical recording means is positioned in a way that it is turned away at a predetermined angle α in a curved course compared to the optical axis (OA) originating from the centre of the target (T), while a mirror (M) is tilted to an extent which is increased by a half of the displacement angle- i.e. with an angle $\alpha/2$ -of the optical recording means (col. 3, lines 31 -35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Alderton, and rotate an angle for optical recording means and mirror, as taught by Bock. The motivation for doing this is that to

allow the book binding area to be more fully illuminated, as discussed by Bock (col. 3, lines 26-29).

Regarding claim 12 (depends on claim 2), Alderton discloses the method characterized by choosing the value of the angle α exceeding at least the half of the optical angle of the optical recording means (From Fig. 4 of current invention, the half of the optical angle of the optical recording means is about 10 degree. Bock discloses the rotating angle θ can exceed 10 degree in the book binding area).

Regarding claim 13 (depends on claim 2), Alderton discloses the method characterized by using a mirror (M) as the optical element (#14 mirror in Figure).

Regarding claim 14 (depends on claim 2), Alderton discloses the method characterized by using a mirror (M) as the optical element (#14 mirror in Figure).

6. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alderton in view of Bock, and in further view of Wu et al. (US Patent 5,847,846), hereinafter referred as Wu.

Regarding claim 8 (depends on claim 1), Bock discloses that the mirror can be tilted (col. 3, lines 31 -35).

However, Alderton in view of Bock fails to explicitly disclose the method characterized by scanning both pages of the opened book (B) used as the target (T) consecutively by a mirror (M) embedded into the wedge-shaped element, but without removing the wedge-shaped element from between the glass plates (G) constituting its boundaries. However, in a similar field of endeavor Wu discloses a method for copying bound books. In addition, Wu discloses the method scanning both pages of the opened book used as the target consecutively by a mirror (M) embedded into the wedge-shaped element (Fig. 3, #14), but without removing the wedge-shaped element from between the glass plates (G) constituting its boundaries (col. 3, lines 27 - 48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Alderton in view of Bock, and scanning both pages of the opened book used as the target consecutively by a mirror embedded into the wedge-shaped element, but without removing the wedge-shaped element from between the glass plates constituting its boundaries, as taught by Wu. The motivation for doing this is to sequentially record opposing pages of bound document positioned thereon using a single image station, as discussed by Wu (abstract).

Regarding claim 10 (depends on claim 9), Alderton in view of Bock fails to explicitly disclose the method characterized by applying a light source (L) assembled of several discrete light sources.

However, in a similar field of endeavor Wu discloses a method for copying bound books. In addition, Wu discloses the method characterized by applying a light source (L) assembled of several discrete light sources (Fig. 1, #23 and #25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Alderton in view of Bock, and applying a light source (L) assembled of several discrete light sources, as taught by Wu. The motivation for doing this is that the both sides of book pages can be properly illuminated and calibrated, as disclosed by Wu (col. 6, lines 37 – 41).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to QIAN YANG whose telephone number is (571)270-7239. The examiner can normally be reached on Monday-Friday 8:00-16:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on 5712727490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business

Art Unit: 2625

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/QIAN YANG/

Examiner, Art Unit 2625

/Benny Q Tieu/

Supervisory Patent Examiner, Art Unit 2625